

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333734-830

Luminaire Tested: **S125RDIW-S1270D1340U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333734-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-S1270D1340U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9655.3 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

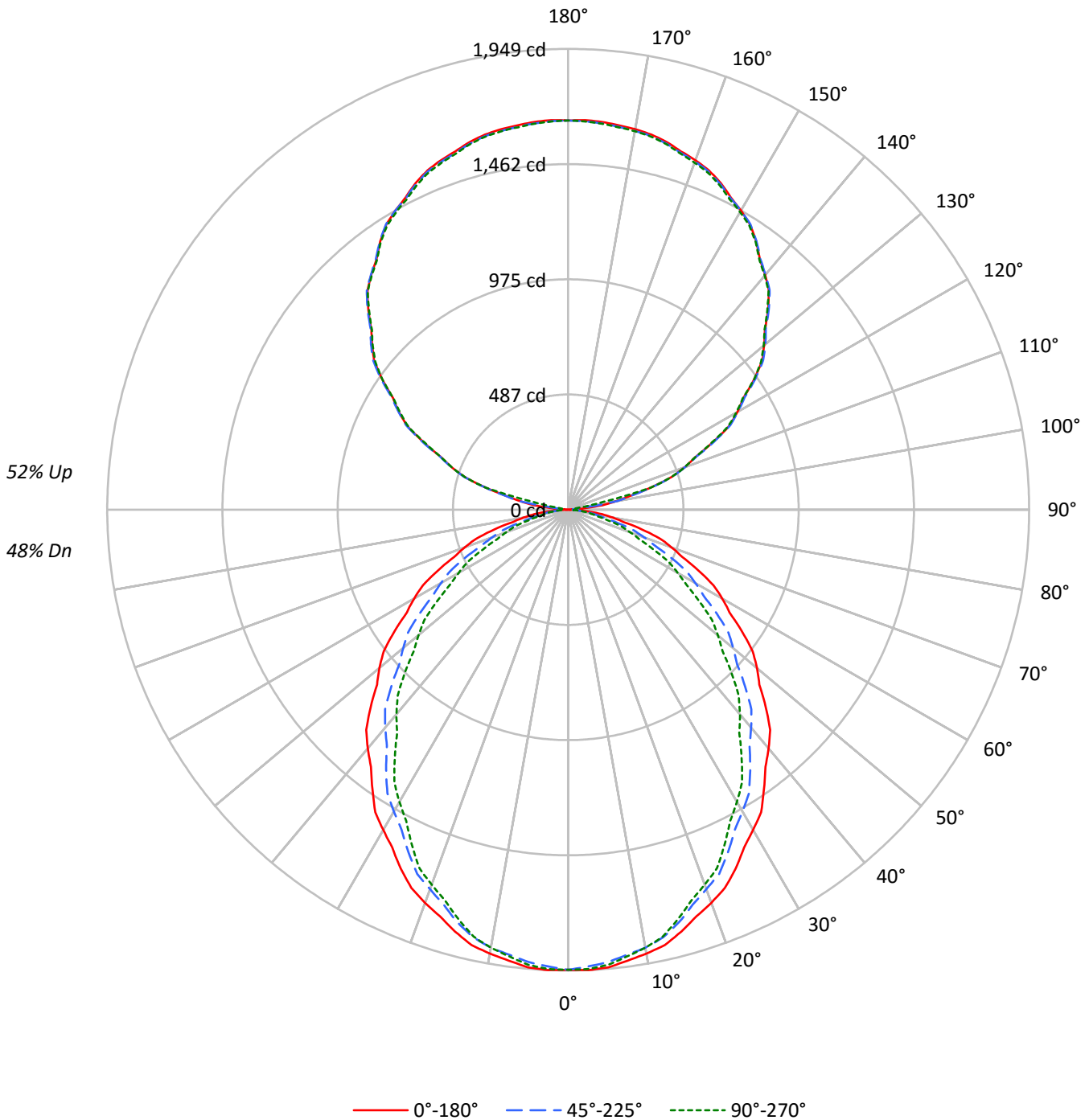
Input Watts (W): 76.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46
2	89	82	76	71	82	75	70	66	64	60	56	53	50	48	42	41	39
3	81	72	65	59	74	66	60	55	56	51	48	47	43	40	38	35	33
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	31	29
5	68	57	49	43	63	53	46	40	45	39	35	37	33	30	31	28	25
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	22
7	58	46	38	33	53	43	36	31	37	31	27	31	27	24	25	22	20
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	18	16
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12566	12566	12566
5°	12595	12452	12528
10°	12499	12336	12336
15°	12351	12085	11987
20°	12160	11736	11595
25°	11938	11393	11142
30°	11660	10992	10641
35°	11378	10578	10080
40°	11113	10146	9528
45°	10791	9664	8925
50°	10468	9139	8298
55°	10094	8637	7629
60°	9719	8029	6909
65°	9274	7321	6085
70°	8769	6437	5246
75°	8067	5425	4362
80°	7107	4262	3663
85°	5995	3483	3268



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.0	1.9
10°-20°	511.3	5.3
20°-30°	741.4	7.7
30°-40°	845.0	8.8
40°-50°	823.6	8.5
50°-60°	693.3	7.2
60°-70°	486.0	5.0
70°-80°	249.8	2.6
80°-90°	66.5	0.7
90°-100°	59.8	0.6
100°-110°	368.7	3.8
110°-120°	668.7	6.9
120°-130°	858.2	8.9
130°-140°	923.1	9.6
140°-150°	866.4	9.0
150°-160°	700.9	7.3
160°-170°	453.3	4.7
170°-180°	156.3	1.6
0°-30°	1435.7	14.9
0°-40°	2280.6	23.6
0°-60°	3797.6	39.3
0°-90°	4599.9	47.6
90°-120°	1097.2	11.4
90°-150°	3744.9	38.8
90°-180°	5055.0	52.4
0°-180°	9655.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1943	1936	1921	1934	1932	184
15°	1847	1837	1808	1805	1793	520
25°	1675	1651	1599	1580	1564	770
35°	1443	1406	1342	1300	1278	903
45°	1182	1137	1058	1001	977	911
55°	896	847	767	703	678	802
65°	607	555	479	422	398	601
75°	323	278	217	186	175	342
85°	81	55	47	46	44	91
90°	1	11	20	26	29	7
95°	70	64	20	25	26	89
105°	359	363	364	364	362	380
115°	674	680	681	676	669	668
125°	958	966	966	962	958	855
135°	1195	1202	1200	1197	1190	921
145°	1385	1387	1388	1388	1382	866
155°	1525	1519	1521	1523	1514	703
165°	1610	1603	1604	1610	1601	455
175°	1646	1639	1640	1649	1639	157
180°	1646	1646	1646	1646	1646	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1949.2	1948.4	1947.6	1946.8	1946.1	1944.4	1941.7	1939.1	1936.5	1933.9	1936.5
5°	1942.8	1941.4	1940.1	1938.8	1937.5	1935.0	1931.5	1927.9	1924.3	1920.7	1923.9
7.5°	1923.6	1922.4	1921.2	1919.9	1918.6	1915.9	1911.6	1907.2	1903.0	1898.7	1900.9
10°	1906.0	1905.0	1904.0	1903.1	1902.1	1899.3	1894.7	1890.2	1885.6	1881.0	1882.0
12.5°	1886.0	1884.8	1883.5	1882.3	1881.0	1877.4	1871.2	1865.1	1858.9	1852.8	1853.5
15°	1847.2	1845.2	1843.3	1841.4	1839.4	1834.9	1828.1	1821.3	1814.4	1807.5	1807.2
17.5°	1803.4	1800.4	1797.4	1794.4	1791.4	1785.6	1777.0	1768.3	1759.7	1751.1	1749.5
20°	1769.3	1766.0	1762.7	1759.5	1756.2	1749.4	1739.0	1728.5	1718.1	1707.6	1706.0
22.5°	1731.7	1728.4	1725.1	1721.9	1718.6	1711.6	1700.5	1689.6	1678.6	1667.6	1664.4
25°	1675.3	1670.4	1665.5	1660.6	1655.7	1647.2	1635.1	1623.1	1610.9	1598.8	1594.6
27.5°	1610.6	1604.7	1598.7	1592.8	1586.9	1577.4	1564.4	1551.5	1538.6	1525.7	1519.8
30°	1563.6	1557.4	1551.1	1545.0	1538.8	1528.8	1515.0	1501.4	1487.6	1473.9	1466.4
32.5°	1517.8	1510.5	1503.3	1496.0	1488.7	1478.1	1464.1	1450.2	1436.2	1422.2	1413.9
35°	1443.1	1435.2	1427.4	1419.6	1411.7	1400.4	1385.7	1371.1	1356.4	1341.7	1332.2
37.5°	1369.9	1360.4	1350.9	1341.3	1331.7	1319.4	1304.3	1289.1	1273.9	1258.8	1247.5
40°	1318.1	1308.3	1298.5	1288.7	1279.0	1266.2	1250.6	1234.9	1219.2	1203.5	1191.2
42.5°	1264.1	1254.1	1244.0	1233.9	1223.9	1210.7	1194.6	1178.4	1162.2	1145.9	1134.1
45°	1181.5	1172.1	1162.5	1153.1	1143.6	1129.9	1111.9	1094.0	1076.0	1058.1	1045.0
47.5°	1096.0	1086.0	1076.0	1066.0	1056.0	1042.0	1023.9	1005.8	987.7	969.6	956.1
50°	1041.9	1031.1	1020.3	1009.6	998.8	984.1	965.4	946.9	928.2	909.6	895.9
52.5°	983.1	972.0	961.0	950.0	939.0	924.6	907.1	889.6	871.9	854.4	839.6
55°	896.5	886.0	875.5	865.1	854.6	840.3	822.0	803.7	785.4	767.1	752.4
57.5°	808.8	797.7	786.5	775.3	764.1	749.8	732.2	714.4	696.8	679.2	664.9
60°	752.4	740.9	729.5	718.1	706.7	692.1	674.5	656.9	639.2	621.6	607.3
62.5°	692.5	681.6	670.6	659.7	648.8	634.4	616.5	598.6	580.7	562.8	549.5
65°	606.9	595.8	584.8	573.6	562.5	548.3	531.0	513.7	496.3	479.1	466.0
67.5°	522.0	510.9	499.7	488.7	477.6	463.7	447.1	430.6	414.0	397.4	385.4
70°	464.4	453.3	442.1	431.0	420.0	406.2	389.9	373.6	357.2	340.9	330.8
72.5°	407.9	397.1	386.3	375.4	364.6	351.5	336.2	320.9	305.7	290.4	281.1
75°	323.3	313.5	303.7	293.9	284.1	272.4	258.6	245.0	231.2	217.4	210.3
77.5°	239.2	231.4	223.6	215.7	207.9	198.5	187.5	176.5	165.6	154.6	149.6
80°	191.1	183.2	175.4	167.5	159.7	151.2	142.0	132.9	123.8	114.6	111.7
82.5°	144.0	137.0	129.9	122.8	115.8	109.1	102.8	96.6	90.3	84.1	82.7
85°	80.9	74.9	69.1	63.2	57.3	53.5	51.9	50.3	48.6	47.0	46.7
87.5°	27.2	25.9	24.5	23.1	21.7	21.1	21.2	21.3	21.4	21.6	21.8
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.7	17.6	19.5	20.9
92.5°	18.8	17.2	15.7	14.2	12.7	12.8	14.5	16.1	17.8	19.5	20.9
95°	69.6	68.7	68.0	67.1	66.3	60.7	50.4	40.2	29.8	19.5	20.9
97.5°	145.2	146.7	148.2	149.6	151.1	141.6	121.2	100.9	80.4	60.0	52.4
100°	203.8	204.6	205.4	206.2	207.1	208.0	209.1	210.2	211.2	212.4	171.9
102.5°	263.3	264.4	265.4	266.5	267.5	268.3	269.0	269.7	270.2	270.9	263.3
105°	358.8	359.9	361.0	362.0	363.2	363.6	363.6	363.6	363.6	363.6	363.6
107.5°	457.9	457.9	457.9	457.9	457.9	458.2	458.7	459.2	459.8	460.3	460.3
110°	522.4	522.4	522.4	522.4	522.4	522.5	523.1	523.7	524.2	524.7	524.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	582.9	583.5	584.2	584.8	585.4	586.0	586.3	586.5	586.9	587.2	586.2
115°	673.6	675.0	676.4	677.7	679.1	679.9	680.1	680.4	680.7	681.0	679.9
117.5°	767.6	767.5	767.5	767.4	767.4	767.9	768.9	770.0	771.0	772.0	770.6
120°	826.1	826.0	825.7	825.4	825.1	825.4	826.1	827.0	827.8	828.6	828.1
122.5°	877.9	878.9	880.0	881.0	882.0	882.8	883.2	883.5	883.9	884.3	883.7
125°	958.0	959.9	961.8	963.7	965.5	966.5	966.5	966.5	966.5	966.5	965.4
127.5°	1034.3	1035.8	1037.1	1038.4	1039.8	1040.4	1040.2	1040.1	1039.9	1039.7	1039.2
130°	1081.2	1082.6	1083.9	1085.3	1086.7	1087.5	1087.8	1088.0	1088.3	1088.5	1087.8
132.5°	1128.1	1129.6	1131.2	1132.8	1134.3	1134.9	1134.3	1133.7	1133.1	1132.5	1132.4
135°	1194.8	1196.4	1198.0	1199.6	1201.3	1201.7	1201.3	1200.7	1200.1	1199.6	1199.1
137.5°	1256.0	1257.4	1258.8	1260.2	1261.6	1262.1	1261.6	1261.1	1260.7	1260.2	1260.3
140°	1296.0	1296.6	1297.1	1297.6	1298.2	1298.4	1298.1	1297.8	1297.5	1297.2	1297.8
142.5°	1332.1	1332.5	1332.8	1333.1	1333.4	1333.8	1334.2	1334.5	1334.9	1335.3	1335.4
145°	1385.1	1385.6	1386.2	1386.8	1387.2	1387.5	1387.5	1387.5	1387.5	1387.5	1387.8
147.5°	1431.4	1431.3	1431.3	1431.2	1431.1	1431.2	1431.4	1431.8	1432.1	1432.5	1432.8
150°	1460.8	1460.2	1459.7	1459.2	1458.6	1458.6	1459.2	1459.7	1460.2	1460.8	1461.3
152.5°	1489.0	1487.9	1486.7	1485.5	1484.3	1483.9	1484.5	1485.1	1485.6	1486.1	1486.7
155°	1525.4	1523.8	1522.2	1520.6	1518.9	1518.4	1518.9	1519.5	1520.0	1520.6	1521.4
157.5°	1553.5	1552.6	1551.5	1550.6	1549.6	1549.2	1549.2	1549.3	1549.4	1549.4	1550.2
160°	1573.0	1571.4	1569.8	1568.1	1566.5	1565.8	1566.1	1566.4	1566.7	1567.0	1568.0
162.5°	1588.7	1587.1	1585.4	1583.8	1582.2	1581.5	1581.8	1582.1	1582.2	1582.5	1584.0
165°	1609.7	1608.0	1606.4	1604.8	1603.2	1602.4	1602.7	1603.0	1603.3	1603.5	1605.1
167.5°	1625.2	1623.6	1621.9	1620.2	1618.5	1617.9	1618.1	1618.3	1618.6	1618.9	1620.9
170°	1634.1	1632.2	1630.2	1628.3	1626.5	1625.6	1625.9	1626.2	1626.5	1626.7	1628.9
172.5°	1639.9	1638.0	1636.2	1634.2	1632.3	1631.6	1632.1	1632.6	1633.0	1633.5	1635.5
175°	1646.2	1644.6	1643.0	1641.3	1639.7	1639.1	1639.4	1639.6	1639.9	1640.1	1642.3
177.5°	1649.2	1647.8	1646.6	1645.3	1644.0	1643.4	1643.7	1643.9	1644.1	1644.3	1645.9
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1939.1	1941.7	1944.4	1945.5	1945.3	1945.0	1944.7	1944.5
5°	1927.2	1930.5	1933.7	1935.0	1934.4	1933.7	1933.1	1932.4
7.5°	1903.2	1905.5	1907.8	1908.6	1907.8	1907.1	1906.4	1905.7
10°	1882.9	1884.0	1884.9	1884.9	1884.0	1882.9	1882.0	1881.0
12.5°	1854.3	1854.9	1855.7	1855.3	1853.8	1852.3	1850.8	1849.3
15°	1806.9	1806.6	1806.2	1804.6	1801.7	1798.7	1795.7	1792.8
17.5°	1747.9	1746.2	1744.6	1742.6	1740.1	1737.7	1735.3	1732.9
20°	1704.3	1702.7	1701.1	1698.7	1695.8	1692.9	1690.0	1687.1
22.5°	1661.2	1658.0	1654.8	1652.0	1649.6	1647.2	1644.7	1642.4
25°	1590.4	1586.1	1581.9	1577.9	1574.3	1570.7	1567.2	1563.6
27.5°	1513.8	1507.9	1501.9	1497.2	1493.7	1490.3	1486.8	1483.4
30°	1459.0	1451.4	1443.9	1438.7	1435.8	1432.8	1429.8	1426.9
32.5°	1405.6	1397.3	1389.0	1383.0	1379.3	1375.5	1371.9	1368.1
35°	1322.8	1313.2	1303.8	1296.8	1292.2	1287.6	1283.1	1278.5
37.5°	1236.1	1224.7	1213.3	1205.4	1201.0	1196.6	1192.1	1187.7
40°	1178.7	1166.3	1154.0	1145.8	1141.8	1137.9	1134.0	1130.1
42.5°	1122.2	1110.3	1098.4	1089.6	1083.8	1078.1	1072.3	1066.6
45°	1031.9	1018.9	1005.8	996.8	991.9	987.0	982.1	977.2
47.5°	942.7	929.3	915.8	906.3	900.9	895.5	890.0	884.7
50°	882.2	868.5	854.8	845.5	840.6	835.7	830.8	825.9
52.5°	824.8	810.1	795.3	785.5	780.6	775.7	770.8	765.9
55°	737.7	723.0	708.3	698.3	693.1	687.9	682.7	677.5
57.5°	650.4	636.1	621.7	612.3	607.6	602.9	598.3	593.7
60°	592.9	578.5	564.1	554.5	549.6	544.7	539.8	534.9
62.5°	536.2	522.8	509.5	500.4	495.5	490.6	485.7	480.8
65°	453.0	439.9	426.8	417.8	412.9	408.0	403.1	398.2
67.5°	373.4	361.5	349.6	341.6	337.7	333.8	329.9	325.9
70°	320.7	310.6	300.5	293.4	289.5	285.6	281.6	277.8
72.5°	271.7	262.4	253.0	247.0	244.4	241.9	239.2	236.6
75°	203.1	196.0	188.8	184.0	181.7	179.5	177.2	174.8
77.5°	144.5	139.5	134.5	131.1	129.4	127.7	126.0	124.3
80°	108.8	105.8	102.8	101.0	100.4	99.7	99.2	98.5
82.5°	81.3	79.9	78.6	77.7	77.3	76.9	76.5	76.2
85°	46.4	46.1	45.7	45.4	45.1	44.8	44.4	44.1
87.5°	22.1	22.3	22.6	22.7	22.6	22.5	22.4	22.3
90°	22.2	23.6	25.0	26.0	26.9	27.6	28.5	29.3
92.5°	22.2	23.6	25.0	25.8	26.2	26.6	27.0	27.3
95°	22.2	23.6	25.0	25.6	25.6	25.6	25.6	25.6
97.5°	44.8	37.1	29.4	25.6	25.6	25.6	25.6	25.6
100°	131.5	91.1	50.7	30.0	28.8	27.8	26.7	25.6
102.5°	255.6	248.0	240.3	227.2	208.9	190.4	171.9	153.5
105°	363.6	363.6	363.6	363.5	363.3	363.0	362.7	362.4
107.5°	460.4	460.5	460.5	460.1	459.3	458.5	457.7	456.9
110°	523.1	522.4	521.5	521.2	521.5	521.8	522.1	522.4





TEST NUMBER: P333734-830

CATALOG NUMBER: S125RDIW-S1270D1340U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	585.1	584.2	583.2	582.4	582.0	581.6	581.3	580.9
115°	678.8	677.7	676.7	675.2	673.6	672.0	670.3	668.7
117.5°	769.2	767.8	766.4	765.3	764.6	763.9	763.2	762.5
120°	827.6	827.0	826.4	825.5	824.2	822.7	821.4	820.1
122.5°	883.2	882.6	882.1	881.0	879.5	877.9	876.3	874.8
125°	964.3	963.3	962.1	961.2	960.5	959.6	958.8	958.0
127.5°	1038.6	1037.9	1037.4	1036.0	1034.1	1032.1	1030.0	1028.0
130°	1086.9	1086.1	1085.3	1084.2	1082.9	1081.5	1080.2	1078.8
132.5°	1132.2	1132.0	1131.8	1131.1	1129.7	1128.4	1127.0	1125.7
135°	1198.5	1198.0	1197.4	1196.4	1194.8	1193.1	1191.5	1189.9
137.5°	1260.4	1260.5	1260.6	1259.9	1258.5	1257.1	1255.7	1254.2
140°	1298.4	1298.8	1299.4	1298.8	1297.2	1295.6	1294.0	1292.3
142.5°	1335.5	1335.7	1335.8	1335.0	1333.3	1331.7	1330.1	1328.5
145°	1388.1	1388.4	1388.6	1388.0	1386.3	1384.7	1383.1	1381.5
147.5°	1433.1	1433.4	1433.8	1432.9	1431.0	1429.0	1427.1	1425.1
150°	1461.9	1462.4	1462.9	1462.1	1459.9	1457.7	1455.6	1453.4
152.5°	1487.2	1487.8	1488.3	1487.6	1485.6	1483.8	1481.8	1479.8
155°	1522.2	1523.0	1523.8	1523.1	1521.0	1518.8	1516.6	1514.5
157.5°	1551.1	1552.0	1552.8	1552.2	1550.0	1547.8	1545.7	1543.5
160°	1569.1	1570.2	1571.3	1570.7	1568.6	1566.4	1564.2	1562.1
162.5°	1585.5	1587.1	1588.7	1588.2	1585.8	1583.4	1581.0	1578.7
165°	1606.8	1608.4	1610.1	1609.8	1607.6	1605.4	1603.3	1601.1
167.5°	1622.9	1624.8	1626.7	1626.5	1624.0	1621.6	1619.2	1616.7
170°	1631.1	1633.2	1635.4	1635.3	1632.9	1630.4	1628.0	1625.5
172.5°	1637.5	1639.5	1641.3	1641.2	1638.7	1636.3	1633.8	1631.4
175°	1644.5	1646.6	1648.8	1648.7	1646.2	1643.8	1641.3	1638.9
177.5°	1647.4	1648.9	1650.4	1650.3	1648.5	1646.8	1645.0	1643.3
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2

(END OF REPORT)